WHAT IS CLAIMED IS:

1. A polynucleotide molecule comprising a promoter region in operable linkage to a dicistronic transcription unit, said unit encoding a heavy chain immunoglobulin or a fragment thereof and a light chain immunoglobulin.

2. The polynucleotide molecule of claim 1, wherein said heavy chain or heavy chain fragment and light chain are chimeric.

3. The molecule of claim 1 wherein said promoter is prokaryotic.

4. The molecule of claim 1 wherein said heavy chain or heavy chain fragment and said light chain encoding units are separately operably linked to a sequence coding for a polypeptide secretion signal.

5. The molecule of claim 4, wherein said polypeptide secretion signal is a pectate lyase signal peptide.

6. The molecule of claim 4, wherein said polypeptide secretion signal is useful for prokaryotic secretion.

7. A heavy chain immunoglobulin molecule, or a fragment thereof, linked to a polypeptide secretion signal.

8. The immunoglobulin molecule, or fragment thereof, of claim 7, wherein said polypeptide secretion signal is a pectate lyase signal peptide.

9. The molecule of claim 7, wherein said fragment is an Fd fragment.

10. A light chain immunoglobulin molecule linked to a polypeptide secretion signal.

11. The immunoglobulin molecule of claim 10, wherein said polypeptide secretion signal is a pectate lyase signal peptide.

12. The molecule of claim 7 or 10, wherein said polypeptide secretion signal is useful for prokaryotic secretion.

13. The molecule of claim 7 or 10, wherein said polypeptide secretion signal is useful for eukaryotic secretion.

14. The molecule of claim 13, wherein said eukaryotic secretion is fungus secretion.

15. The molecule of claim 13, wherein said eukaryotic secretion is yeast secretion.

16. A polynucleotide molecule encoding the immunoglobulin molecule of claim 7 or 10.

17. A process of preparing a fusion gene comprising a genetic sequence encoding a immunoglobulin fragment and a polypeptide signal moiety, comprising:

operably linking a genetic sequence encoding said polypeptide signal moiety to a genetic sequence encoding an immunoglobulin fragment, and

expressing said fusion gene in a host cell.

18. The process of claim 17, wherein said host is prokaryotic.

19. The process of claim 17, wherein said host is eukaryotic.

20. The process of claim 17, wherein the host is a fungus.

21. The process of claim 17, wherein the host is yeast.

22. The process of claim 17, wherein said polypeptide signal moiety is a pectate lyase signal peptide.

23. A method of preparing a genetic sequence coding for a chimeric immunoglobulin chain having a constant human region and a variable non-human region of any desired specificity, which comprises:

(a) providing a first polynucleotide molecule coding for said variable region from a cell secreting monoclonal antibodies of said desired specificity;

(b) priming the formation of a copy of said variable region with a second polynucleotide molecule comprising a consensus genetic sequence for the J region of said immunoglobulin chain;

(c) providing a genetic sequence coding for said human constant region; and

(d) operably linking said cDNA sequence of step (b) to said sequence of step (c).

24. The method of claim 23, wherein step (d) comprises operably linking said cDNA sequence to said sequence of step (c) in an expression vehicle.

25. The method of claim 24, wherein said vehicle is a plasmid.

26. The method of claim 25, which further comprises transforming said plasmid into a host capable of expressing said plasmid.

27. The method of claim 23, wherein said chain is a heavy chain.

28. The method of claim 23, wherein said chain is a light chain.

29. The method of claim 23, wherein said consensus sequence is selected from the group consisting of:

(i) a human heavy chain J region;
(ii) a mouse heavy chain J region;
(iii) a human Kappa J region;
(iv) a mouse Kappa J region; and
(v) a mouse Lambda J region.

30. The method of claim 23, wherein said consensus genetic sequence is selected from the group consisting of those denoted as MJH1, MJH2, MJH3, MJH3-BSTEII, MJH-BSTEII(13), MJH4, 5JK1, 5JK2, JK2BGlII, 5JK4, JK4BGlII, 5JK5 and MJK in Figure 7.

31. The method of claim 23, wherein said consensus sequence further comprises the sequence coding for the recognition site of a restriction site of a restriction endonuclease enzyme.

32. The method of claim 23, wherein said consensus genetic sequence is selected from the group consisting of those denoted as UIGH, UIGK and $MJ_{H}2$-<u>Apa</u>I in Figure 7.0.

33. A process of preparing an immunoglobulin containing a heavy chain, or heavy chain fragment, and a light chain, which comprises:

(a) culturing a host capable of expressing said heavy chain or heavy chain fragment and said light chain under culturing conditions; and

(b) recovering from said culture said immunoglobulin molecule.

34. The process of claim 33, wherein each of said heavy chain or heavy chain fragment and light chains comprise a constant human region and a variable non-human region.

35. The process of claim 33, wherein said host contains a first plasmid comprising a gene encoding said heavy chain or heavy chain fragment and a second plasmid comprising a gene encoding said light chain, wherein said first plasmid is present in a higher copy number relative to said second plasmid.

36. The process of claim 34, wherein said immunoglobulin is an Fab fragment.

37. The process of claim 33, wherein said host is prokaryotic.

38. The process of claim 33, wherein said host is eukaryotic.

39. The process of claim 33, wherein said host is a fungus.

40. The process of claim 33, wherein said host is a yeast.

41. The process of claim 33, wherein said immunoglobulin molecule is produced from said host in functional form.

42. A recombinant vector capable of transforming a bacterial host comprising a fragment consisting essentially of a DNA sequence coding for a pectate lyase signal peptide in which the vector enables the expression of a foreign protein when the vector is used to transform the bacterial host.

43. The vector of claim 42, further comprising a DNA sequence coding for a foreign protein operably linked to said pectate lyase signal sequence.

44. The vector of claim 43, further comprising a DNA promoter sequence, said promoter DNA sequence being operably linked to the DNA sequence coding for said signal and protein sequences so as to permit expression of said protein in the host.

45. The vector of claim 42, wherein the host is a gram negative bacterium.

46. The vector of claim 42, wherein the host is E. coli.

47. The vector of claim 42, which is a plasmid.

48. The vector of claim 42, which is plasmid pING173.

49. The vector of claim 43, wherein the protein is thaumatin.

50. The vector of claim 43, wherein the protein is an antibody or fragment thereof.

51. The vector of claim 46, wherein the pectate lyase is pectate lyase B of Erwinia carotovora.

52. The vector of claim 42, wherein the promoter is an araBAD or lac promoter.

53. The vector of claim 49, which is plasmid pING177-1.

54. The vector of claim 50, which is plasmid pRR177-8.

55. The vector of claim 50, which is plasmid pRR178-5.

56. A bacterial host comprising the vector of claim 42.

57. The host of claim 56 which is a gram-negative bacterium.

58. The host of claim 56, wherein the host is E. coli.

59. The host of claim 56, wherein the vector is a plasmid.

60. The host of claim 57, wherein the foreign protein is thaumatin.

61. The host of claim 56, wherein the foreign protein is an antibody or fragment thereof.

62. The host of claim 56, wherein the pectate lyase is pectate lyase B of Erwinia carotovora.

63. The host of claim 62, wherein the promoter is an araBAD or lac promoter.

64. The host of claim 58, wherein said vector is plasmid pING173.

65. The host of claim 64, wherein said vector is plasmid pING173 which has been deposited under accession No. NRRL B-18289.

66. The host of claim 60, wherein said vector is plasmid pING173-1.

67. The host of claim 61, wherein said vector is plasmid pING177-8.

68. The host of claim 61, wherein said vector is plasmid pRR178-5.

69. The host of claim 58 which is strain 706, MC1061, or JM103.

70. In a method for production of a foreign protein in a bacterial host which comprises transforming the host with a recombinant vector which contains a DNA sequence coding for said protein and a promoter DNA sequence, the improvement comprising employing a recombinant vector which comprises a pectate lyase signal sequence operably linked to said DNA sequence coding for said protein sequence and said promoter sequence.

71. The method of claim 70, wherein the host is a gram-negative bacterium.

72. The method of claim 70, wherein the host is E. coli.

73. The method of claim 70, wherein the vector is a plasmid.

74. The method of claim 70, wherein the foreign protein is thaumatin.

75. The method of claim 70, wherein the foreign protein is an antibody or fragment thereof.

76. The method of claim 70, wherein the pectate lyase is pectate lyase B of Erwinia carotovora.

77. The method of claim 74, wherein the promoter is an araBAD or lac promoter.

78. The method of claim 73, wherein the plasmid is pING177-1.

79. The method of claim 75, wherein the plasmid is pING177-8.

80. The method of claim 75, wherein the plasmid is pRR178-5.

81. A method for externalization, relative to a host, of a foreign protein from the cytoplasm of said host which comprises culturing in a culture medium the host containing a plasmid comprising a pectate lyase signal DNA sequence operably linked to a foreign protein DNA sequence and a promoter DNA sequence positioned in relation to said signal and protein sequences so as to permit expression of said foreign protein in the host.

82. The method of claim 81, wherein the host is a gram-negative bacterium.

83. The method of claim 81, wherein the host is E. coli.

84. The method of claim 81, wherein the vector is a plasmid.

85. The method of claim 81, wherein the foreign protein is thaumatin.

86. The method of claim 81, wherein the foreign protein is an antibody or fragment thereof.

87. The method of claim 81, wherein the promoter is an araBAD or lac promoter.

88. The method of claim 83, wherein the E. coli is strain MC1061, JM103 or 706.

89. The method of claim 83, wherein the plasmid is pING177-1.

90. The method of claim 85, wherein the plasmid is pING177-8.

91. The method of claim 85, wherein the plasmid is pRR178-5.

92. A purified gene sequence coding for the signal peptide for a pectate lyase, or mutants or recombinants thereof.

93. The method of claim 92, wherein the pectate lyase is pectate lyase B of Erwinia carotovora.

94. The sequence of claim 92 as depicted in Figure 36A.